

Code: 9R01802

B.Pharm IV Year II Semester (R09) Supplementary Examinations April 2018

PHARMACEUTICAL BIOTECHNOLOGY

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) With the help of a neat labeled diagram, explain the different parts of a fermenter.
(b) Explain main parameters to be controlled in fermentation.
- 2 (a) Write about strain improvement, its significance and different methods used for strain improvement.
(b) Write briefly about screening of industrial important microbes.
- 3 (a) Describe the source of culture, media composition, fermentation, extraction and purification of penicillin.
(b) Write the purification of lactic acid from completed fermentation broth.
- 4 (a) Write about different types of general methods employed for microbial transformations.
(b) Discuss microbial transformation and its applications in pharmaceutical industry.
- 5 (a) Describe how whole human blood is collected and mention its labeling requirements along with storage conditions.
(b) Discuss ideal characters of plasma substitute.
- 6 (a) Discuss about different techniques of immobilization of enzymes.
(b) Write the advantages of immobilization over isolated enzymes.
- 7 (a) Discuss about applications of bioinformatics in the field of pharmacy.
(b) Discuss briefly about proteomics.
- 8 (a) Describe the preparation, standardization, labeling and storage of BCG vaccine.
(b) Explain the terms Humoral and cell mediated immunity.
